Name_____

The following is a list of problems to help you prepare for your final exam.

Geometry 201 Review for Final

Chapter 7

p. 908-909 #1-23odd, 4, 24, 27-31odd, 37-41odd, 47

Chapter 8

p. 910-911 #1-5odd, 8, 12, 14-21, 26-31, 39, 41-47, 49

Chapter 9

p. 912-913 #9,14-20even, 23, 26, 27, 29, 31, 34, 38

Chapter 10

p. 914-915 #1-9, 12, 13, 25, 26, 28-34, 36, 38-42, 44, 47-49, 54

Chapter 11

p. 916-917 #1, 3, 9, 11, 12, 15, 17, 23, 30, 31, 39, 45, 46, 49, 50

Chapter 12

p. 918-919 #5, 7-9, 13-16, 18, 19, 21, 23, 24, 26-28, 30, 33, 34, 36

Geometry 201 Final Topics

Chapter 7:
Apply the Pythagorean Theorem and its converse to solve problems.
Know and apply Pythagorean triples in problem solving.
Classify triangles by sides and angles.
Solve problems in right triangles using the geometric mean**.**
Apply similarity relationships in right triangles to solve problems.
Use the relationships in special right triangles to solve problems.
Use trigonometric ratios and inverses to solve problems involving right triangles.
Solve problems involving angle of elevation and angle of depression.
Prove theorems and other statements involving similar and right triangles using 2 column proofs.

Chapter 8:
Develop and apply the formula for finding the sum of interior angles of a polygon.
Find the interior and exterior angles of regular and irregular polygons.
Prove and apply properties of parallelograms.
Use properties of parallelograms to solve problems.

Prove that a given quadrilateral is a parallelogram.
Prove and apply properties of rectangles, rhombuses, and squares.
Use properties of rectangles, rhombuses, and squares to solve problems.
Use properties of kites and trapezoids to solve problems.
Prove theorems and other statements involving quadrilaterals.
Prove the classification of a quadrilateral by coordinate proof.

Chapter 9:
Perform similarity transformations.
Determine the scale factor of a similarity transformation.
Represent translations using matrices.
Translate figures using coordinate rules, vector notation and matrices.
Reflect figures using coordinate rules and matrices.
Rotate figures about the origin using coordinate rules and matrices.
Rotate figures about a point on the coordinate plane.
Perform compose transformations of figures on the coordinate plane.
Identify and quantify rotational and line symmetry in figures.

Chapter 10:

Identify tangents, secants, chords, and other terms related to circles.
Use properties of tangents to solve problems.
Apply properties and theorems related to arcs.
Find arc length and other related measures.
Apply properties and theorems of chords to solve problems.
Find the measure of an inscribed angle.
Use inscribed angles and their properties to solve problems.
State, apply, and prove the theorems related to angle relationships in circles.
Find the measure of angles and arcs formed by intersecting chords.
Find the measure of angles and arcs formed by tangents and chords.
Find the measure of angles and arcs formed by two secants, two tangents, or a secant and a tangent.
State, apply, and prove the theorems related to segments intersecting inside or outside of a circle.
Find the length of chords that interest inside a circle.
Find the length of tangents and secants that intersect outside the circle.
Write and graph the equation of a circle.
Solve problems on the coordinate plane related to the equation of a circle.
Convert between the following units: 1. Degrees and radians 2. Degrees in decimal form and degrees, minutes, seconds.

Chapter 11:

Develop and apply the formulas for the area of triangles and special quadrilaterals.

Solve problems involving perimeter of triangles and special quadrilaterals.
Solve problems involving area of triangles and special quadrilaterals.
Develop and apply the formulas for the area and circumference of a circle.
Develop and apply the formulas for the arc length and sector of a circle.

Solve area and perimeter problems using scale factors.
Find the area of regular polygons.
Use length and areas to solve for geometric probability.

Chapter 12:

Classify 3 dimensional figures according to their properties.
Apply Euler's formula to find the number of vertices, edges, and faces of a polyhedron.
Develop and apply the formulas for the surface area of prisms and cylinders.
Develop and apply the formulas for the surface area of pyramids and cones.
Develop and apply the formulas for the volume of prisms and cylinders.
Develop and apply the formulas for the volume of pyramids and cones.
Develop and apply the formulas for the surface area and volume of a sphere.